AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1. (Currently Amended) ~~Transmission~~ A transmission apparatus comprising:

a first relay receiving data messages formatted in a first protocol from a transmitter and

converting the data messages formatted in the first protocol ~~received in this way~~ into data

messages formatted in a second protocol[[,]] ;

a second relay connected to the first relay and receiving the data messages formatted in

the second protocol from the first relay and transmitting ~~them~~ the data messages formatted in the

second protocol in a synchronous mode to a receiver, ~~and~~ ;

a limited data rate transmission channel interconnecting the ~~two relay~~ first and second

relays, wherein, ~~since~~ said data messages formatted in said second protocol ~~can be~~ include data

messages of different lengths, ~~said apparatus includes~~ ; and

means for transmitting said data messages ~~that can be of different lengths~~ formatted in

said second protocol over said limited data rate transmission channel in an asynchronous mode.

2. (Currently Amended) ~~Apparatus~~ The apparatus according to claim 1, wherein the

second relay includes ~~including~~ a buffer memory ~~in the second relay, interposed in a~~

transmission path of said second relay configured to store received the data messages received

from the first relay and then to transmit them the data messages to the receiver.

3. (Currently Amended) Apparatus The apparatus according to claim 2, wherein the

second relay includes a decoder for receiving an instruction to retransmit a data message and for

storing a copy of a data message that is to be retransmitted in the buffer memory.

4. (Currently Amended) Apparatus The apparatus according to claim 1, wherein the first

protocol has a plurality of data rates for transmitting payload bits, the rate at which the payload

bits are transmitted over the limited data rate transmission channel being intermediate in value

between the data rates of the first protocol.

5. (Currently Amended) Apparatus The apparatus according to claim 2, wherein the

buffer memory is of the first-in-first-out type.

6. (Currently Amended) A transmission method comprising the following steps of:

[[•]] receiving, in a first relay, data messages formatted in a first protocol and coming

from a transmitter;

[[•]] converting the data messages received in this way formatted in the first protocol

into data messages formatted in a second protocol;

[[•]] transmitting the data messages formatted in the second protocol to a second relay

connected to the to the first relay by a limited data rate transmission channel, wherein said data

message formatted in said second protocol ~~can be of~~ include data messages having different

lengths, and said data messages ~~capable of~~ having different lengths are transmitted over said

limited data rate transmission channel in an asynchronous mode; and

transmitting, in a synchronous mode, the data messages formatted in the second protocol

from the second relay to a receiver~~;~~

~~wherein said data messages formatted in said second protocol can be of different lengths,~~

~~said method including transmitting said data messages capable of having different lengths over~~

~~said limited data rate transmission channel in an asynchronous mode~~.

7. (Currently Amended) A method according to claim 6, ~~including~~ further comprising:

[[•]] storing a plurality of the received data messages in a buffer memory of the second

relay~~; and~~

[[•]] ~~performing said storage~~ prior to the second relay transmitting the messages to the

receiver.

8. (Currently Amended) A method according to claim 7, wherein:

[[•]] a message retransmission instruction is decoded in the second relay;

[[•]] a copy of a message to be retransmitted is stored in the buffer memory; ~~and/or~~ and

[[•]] a determined retransmission order is modified.

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9. (Currently Amended) A method according to claim 6, wherein the first protocol has a plurality of data rates for transmitting payload bits, the rate at which the payload bits are transmitted over the limited data rate transmission channel being intermediate in value between the data rates of the first protocol.

10. (Currently Amended) A method according to claim 7, wherein ~~storage~~ the buffer memory is of the first-in-first-out type.

11. (New) The transmission apparatus according to claim 2, wherein said second relay further includes a decoder for receiving instructions for controlling said buffer memory, said decoder determining whether a message is unavailable for transmission during a following transmission window based reception date of the message.

12. (New) A transmission apparatus comprising:

a first relay receiving data messages formatted in a first protocol from a transmitter and converting the data messages formatted in the first protocol into data messages formatted in a second protocol;

a second relay connected to the first relay and receiving the data messages formatted in the second protocol from the first relay and transmitting the data messages formatted in the second protocol in a synchronous mode to a receiver;

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a limited data rate transmission channel interconnecting the first and second relays,

wherein said data messages formatted in said second protocol include data messages having a

length different from a length of a transmission window for transmission in the synchronous

mode over said limited data rate transmission channel; and

means for transmitting said data messages formatted in said second protocol over said

limited data rate transmission channel in an asynchronous mode.

13. (New) A relay device for a transmission apparatus, the relay device comprising:

means for receiving data messages formatted in a first protocol from a transmitter;

means for converting the data messages formatted in the first protocol into data messages

formatted in a second protocol; and

means for transmitting the data messages formatted in the second protocol over a limited

data transmission rate channel in an asynchronous mode, wherein the data messages formatted in

the second protocol include data messages of different lengths.

14. (New) The relay device according to claim 13, wherein the first protocol has a

plurality of data rates for transmitting payload bits, the rate at which the payload bits are

transmitted over the limited data rate transmission channel being intermediate in value between

the data rates of the first protocol.

15. (New) The relay device according to claim 13, further comprising means for transmitting to another relay device instructions for retransmitting the data messages formatted in the second protocol and for storing the data messages formatted in the second protocol to be retransmitted.

16. (New) A relay device for a transmission apparatus, the relay device comprising:

means for receiving data messages transmitted in an asynchronous mode over a limited data rate transmission channel, wherein the data messages include data messages of different lengths;

a buffer memory configured to store the data messages; and

a decoder for receiving an instruction to retransmit the data messages in a synchronous mode to a receiver and for storing the data messages that are to be retransmitted in the buffer memory.